

Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.

1.942
W2T22

U.S. Agricultural marketing Service

Technical Terms of the Wool
Trade, by W. M. Buck



UNITED STATES
DEPARTMENT OF AGRICULTURE
LIBRARY



BOOK NUMBER

1.942
W2T22

610012

UNITED STATES DEPARTMENT OF AGRICULTURE
Agricultural Marketing Service

TECHNICAL TERMS OF THE WOOL MARKET_1/

By Warner M. Buck, Specialist in Marketing Wool



It is the purpose of this article to present brief, but comprehensive information relative to the meaning and, to some extent, the origin of the wool-market terms that are most commonly used. Some of these terms are confusing to those not thoroughly conversant with wool marketing. At times they even prove to be misleading so that erroneous conclusions are then drawn from the market reports or other statements regarding wool. Inquiries are frequently received by the Department of Agriculture asking the meaning of certain of these terms.

"Grease wool", "Greasy wool", or "Wool in the grease". Wool in its original condition or as it comes from the sheep's back, is known as "grease wool", "greasy wool", or "wool in the grease". When in this condition, wool contains a relatively large quantity of extraneous substances in the form of natural grease, dried perspiration, soil, sand, vegetable matter, etc. This foreign matter must be removed before the wool can enter the manufacturing processes, and this is usually effected by scouring the greasy wool in a soap-and-soda solution.

"Shrinkage", "Yield", or "Clean content". The loss in weight that occurs as a result of the removal of this foreign matter is termed "shrinkage", and the quantity of clean scoured wool that remains after cleansing is known as the "yield" of the wool, or its "clean content". It is important to note that when the word "shrinkage" is applied to grease wool it has no reference whatsoever to any change that may take place in the dimensions of the fibers during the cleansing process.

"Scoured basis" or "Clean basis". Frequently the selling prices of wool are quoted on a "scoured basis", or on a "clean basis", or as so much per pound "clean". When reference is made to the price of wool on any of these bases it does not necessarily mean that the actual scouring operation has been done or that its cost is included in the price quoted. For example, if wool estimated to shrink 50 percent in scouring, were priced at 30 cents per grease pound, the price of that particular wool would be 60 cents per pound on a scoured basis. Briefly, "scoured basis" is a trade term which refers to the estimated yield of the scoured wool that may be obtained from a lot of grease wool.

1/ These definitions and descriptions are not presented as standardized results of deliberations by the Agricultural Marketing Service but rather as useful explanations of trade terms as they are now used.

"Grading" and "Sorting". To produce the many different kinds of wool manufactures and to secure the desired effects in the finished articles, wool of an even grade and a specified degree of fineness is required. It is obvious that a fine light-weight fabric could not be produced from a coarse wool, nor would a fine wool be used to produce a rough cloth. Two important operations are carried on in the journey of wool from its raw state to the finished fabric, the purpose of which is to group together wools having like characteristics. The first of these is the market operation of grading in which whole fleeces are placed in their respective grades; the other operation is sorting, which is the breaking up of the individual fleeces into their various qualities, and which is usually done in the mill. As most manufacturers confine their products to only a few kinds of yarns or fabrics, the number of grades of wool suited to their needs is limited. This demand for specific grades is chiefly responsible for the separation of the fleeces into the different groups made when they are graded. Manufacturers are willing to pay a higher price in order to obtain wool containing only the grades that meet their requirements. Therefore, clips usually bring better prices if they are graded.

"Original wools". When "original wools" are mentioned in the market, reference is made to ungraded lots as received from the producing sections. Some clips from a few range States are sufficiently uniform in grade to be marketed advantageously without grading. Such sales are known as "original bag" sales. Most clips, however, contain too many grades to be marketed advantageously without being graded. If all lots bought by manufacturers were ungraded that part of the wool that was unsuited to the type of article produced would probably have to be disposed of at a price concession.

"Grading operations". When wool is graded the tying strings are not removed from the fleece but the fleeces are placed in different grades in accordance with the great variation in the fineness of the fibers, length of staple, strength, color, freedom from foreign matter, and other characteristics. After this operation the fleeces found in any one grade have like characteristics. Only the technical terms used to describe these grades are of particular interest in this discussion, and therefore no attempt is made to give an exact definition of the factors responsible for the grading of fleeces.

Grade Nomenclature. Two distinct systems of nomenclature are used in the industry to describe the market grades of wool: they are known as the "blood" or "American" and the "numerical" or "English" systems. Terms like "Fine", "1/2 blood", and "3/8's blood" describing the fineness of wool are of American origin and their use is confined to this country, whereas the numerical terms like "58's, 60's, and 56's" are used internationally. The use of the numerical terms is comparatively new in this country except among importers of wool but it seems that the fineness of wool can be designated more accurately by these numbers. In view of this fact it is reasonable to assume that they will be more popular as they become better known. To correlate the two systems, the grade specimens used in the practical forms of the United States official

standards for grades of wool carry the respective numerical terms and the corresponding terms as used in the blood system. These practical forms, which are illustrated in figure 1, are widely distributed throughout the industry.

Fineness in wool can be correctly designated by either or both systems but the English or numerical system is more specific in several instances. The terms "56's" and "3/8's blood" describe the same grade of wool. But in the case of "Fine" the numerical system has three grades (64's, 70's, and 80's) to cover the qualities so designated. The following table shows the designations of the market grades of wool in the two systems and correlates the terms in the blood system and the numerical system. The numerical system, as shown, has five more grades than the blood system.

TERMS INDICATING GRADE DESIGNATIONS

BLOOD SYSTEM	NUMERICAL SYSTEM
Fine.....	64's, 70's, 80's
1/2 blood.....	58's, 60's
3/8 blood.....	56's
1/4 blood.....	48's, 50's
Low 1/4 blood.....	46's
Common	44's
Braid.....	36's, 40's

The Blood System. The blood terms were first used in this country to designate the fineness of wool in accordance with the amount of Merino blood present in the animal that produced the fleece. Wool produced of the Merino sheep was extremely fine, and therefore fleeces of the same fiber diameter as that shorn from full-blooded Merinos became known as "Fine" fleeces, hence, the "Fine" grade. The terms "1/2 blood" and "1/4 blood" described the relative fineness of the wool obtained from sheep containing these respective fractional amounts of Merino blood. Later, the designations "3/8's blood" and "low 1/4 blood" were adopted to describe wools a little finer or a little coarser than the 1/4 blood. The term "Common" was then adopted to describe an even coarser grade than the low 1/4 blood, and the very coarsest was known as "Braid". This last term refers to long coarse wool and apparently bears no relation to the blood system as described.

Originally, these blood terms when used for wool had rather close relationship with the breeding of the animal from which the fleece was taken, but they eventually came to denote relative fineness of wool rather than the blood line of the sheep producing it. In the application of these terms to wool today, they no longer have any necessary relation with the breeding of the animal from which the fleeces are shorn. Many purebred sheep produce 1/4 blood or 3/8's blood wool; in fact purebreds produce wool of varying grades according to their respective breeds.

The Numerical System. The nomenclature in the numerical or count system has for its basis the maximum spinning capacity of wool, or the finest count to which it can be spun. In the count system, the unit of measure is one hank of yarn, 560 yards in length. When applying numerals to designate market grades it is assumed that the grade of wool is of the same degree of fineness as the finest yarn it will produce at its maximum spin. On this basis the numerical count designating the grade of wool would theoretically indicate the number of such hanks in a pound of yarn ^{2/} which the wool of that grade would produce when spun to its maximum possibility.

As an illustration, if one hank of yarn containing 560 yards weighs 1 pound, (which is not the practice) the yarn would be known as a "1 count yarn". Theoretically, wool that might be so coarse that it could not be spun finer than 560 yards to the pound would be known as a "1's" wool. Likewise, if a yarn were spun so fine that it would require 50 hanks of 560 yards each to weigh 1 pound, the yarn would then be termed a "50's count yarn" or would be of the fineness known commercially as a "50's". Wool of the fineness or diameter of fiber (or grade) which at its maximum spin is capable of producing this 50's count yarn would be classed as a 50's wool. Wool of the fineness or diameter of fiber (or grade) which at its maximum spin would produce 60 hanks of yarn of 560 yards each, or a total of 33,600 yards, the weight of which would be 1 pound, would be classed as a "60's wool" and so on. The maximum count to which wool can be spun depends largely upon the fineness or the diameter of the fibers, therefore the finer the wool the higher count yarn it will produce. Hence, the finer grades of wool are designated by the higher numbers of spinning counts. In a large measure the numerical terms as applied to wool have significance only as grade names, since customarily the different grades of wool are not spun to the degree implied by their numerical grade designations.

"Worsted" and "Woolen." The two principal branches of the wool-manufacturing industry are known as the "worsted" and "woolen" industries. Both of these branches use fine, medium, and coarse grades of wool, but their requirements with respect to length of staple are not alike, because there is a marked difference in the manner of treating the wool in the two branches of the industry, especially in the preparation of the yarn. In the manufacture of worsted yarn, sound wool of a good length is required, whereas the shorter lengths can be used to advantage in the manufacture of woolsens. There are two systems of worsted manufacture, the "Bradford" and the "French". The former requires wool of good long staple whereas the latter can probably use staple that is as short as 1 inch.

The very short wool, however, is consumed by the woolen branch of the industry. For this reason the shortest wool is often referred to as "woolen wool". The differences in the length of staple as required by these systems of manufacture are responsible for the groupings with respect to length that are made in the different market grades.

^{2/} One pound of scoured wool will not yield one pound of yarn since some of the wool is removed as noils in the combing process.

Length of Staple. The terms used in the blood and numerical systems of nomenclature refer only to the relative fineness, or the diameter of fiber, of wool. Therefore, in order to indicate length and give the wool a more complete description it is necessary to use other designations as well. The terms describing the market groups for length, that are usually made when wool is graded, are "Combing", "French Combing", and "Clothing". The "Clothing" length is also frequently referred to as "Carding". When Fine wools, 64's or finer, are graded they are usually separated into the three groups of lengths - Strictly Combing, French Combing, and Clothing - whereas, in the coarser grades it is customary to make only two groups, the Combing and Clothing. On the very few occasions when an intermediate length is made in the 1/4 blood (48's, 50's) grade or in the 3/8's blood (56's) grade, it is sometimes designated as "Baby Combing". As an illustration, a wool that is "Fine" is described either as a "Fine wool", or as wool of a 64's, 70's, or 80's grade, but with only this description no opinion could be formed regarding its length. But when reference is made to "Fine Combing wool", or to 64's, 70's or 80's Combing wool, it immediately becomes clear that the wool being described is not only fine, but also possesses good length of staple, and has sufficient length to be combed to advantage. A lot of wool described as Fine French Combing wool would be of the same relative fineness as the Fine Combing but would be shorter in staple; but it would be longer than the length termed "Clothing". When "Clothing" is used in conjunction with the term descriptive of the degree of fineness it indicates merely that the staple is short; it does not mean that the wool is suitable only for manufacture into wearing apparel.

"Delaine" and "Baby Delaine". The term "Delaine" is applied to "Fine" farm-flock wool of Strictly Combing length. Practically all of this wool originates in Ohio, Michigan, Pennsylvania, and West Virginia. In some instances Fine wool from these States, which is shorter and hardly of sufficient length to warrant its inclusion with the Delaine, is kept apart and is designated as "Baby Delaine". To call wool Fine Delaine does not necessarily indicate that the fleeces have been shorn from the Delaine Merino breed of sheep.

"Territory", "Fleece", and "Domestic" Wools. The terms "Territory wool" and "Range wool" are applied to wools grown in Wyoming, Montana, Utah, Nevada, Colorado, New Mexico, eastern Oregon, and parts of the Dakotas. "Fleece wool" refers to the production of the Middle Western and Eastern farm States; Texas and California are designated by their respective State names. The term "Domestic wool" is used to distinguish wools grown in the United States from those originating in foreign countries.

"Pulled Wool". "Pulled wool" is the term applied to wool that has been removed from the pelts of animals slaughtered largely in the packing houses. As an initial step in the pulling operation the pelts are thoroughly washed. This frees the wool of much of the foreign matter. Then the inside of the skin is painted with a depilatory solution which loosens the roots of the wool so that it can readily be

removed by hand. Subsequently, in the actual pulling operation, the wool is carefully sorted according to fineness, length, color, etc. This combination of operations produces a very desirable product of even grade which carries only a minimum quantity of extraneous matter and sells at a relatively high price in the markets.

"Rejections". "Rejections", "rejects", or "discounts", are terms applied to faulty fleeces or those which have a very limited market because of their color. "Burry", "seedy", "cotted", or closely matted fleeces and those that are "dead", "black", or "gray", are all classed as "rejections".

"Burry", "seedy", and "chaffy", are names applied to wool which has excessive quantities of burrs, seeds, chaff, or other vegetable matters entangled in the fibers. When this condition exists additional chemical or mechanical treatment is necessary to remove them.

"Cotted" fleeces are those in which the fibers have become badly tangled or matted. "Hard cotts" or "soft cotts" are terms denoting the amount of tangle or matt in the fibers. Special mechanical treatment is usually necessary to open these fleeces when preparing them for the manufacturing processes.

"Black", and "gray" are the terms used in the market to describe colored wools. The first is usually applied to that which is nearly all black while colored fleeces containing relatively large quantities of white, brown, or gray wool are designated by the last term.

"Dead wool" applies to that which has been clipped from sheep shortly after death. When wool is recovered from decomposed remains found on the ranges it is designated by the term "Murrain" or "Merrin".

"Top". "Top" is the term applied to wool that has been advanced in the manufacturing processes to the extent of having been sorted, scoured, carded, and combed. When in this form it is a rope-like strand composed only of the long fibers which have a parallel arrangement resulting from the processes through which the wool has passed. The short fibers have been removed by the comb. After wool has been combed into Top only two important operations remain to convert it into yarn - "drawing" or the reduction of the Top to a suitable size for spinning and the actual spinning operation itself. Usually Top is wound into balls which range in weight from 5 or 6 up to as high as 15 pounds each. (Fig. 2.) The manufacturing of Top plays an important part in the wool-textile industry and some concerns known as "Topmakers" produce and sell many million pounds annually.

"Noil". "Noil" is the term applied to a by-product of the worsted system of manufacture. It is applied to those short fibers which are separated from the longer ones in the combing operation. The woolen manufacturers are not so exacting in their requirements with respect to length of fiber, therefore a ready market is found for the noils in this branch of the industry.

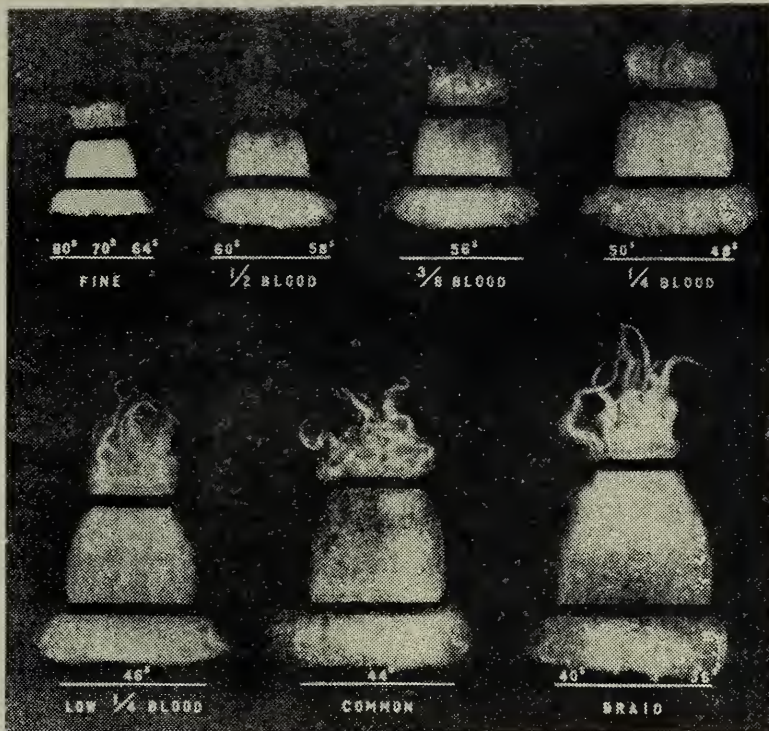


FIGURE 1 - SPECIMENS USED IN THE PRACTICAL FORMS OF THE OFFICIAL STANDARDS FOR GRADES OF WOOL ARE DESIGNATED BY THE BLOOD TERMS AS WELL AS BY THE CORRESPONDING NUMERICAL TERMS.

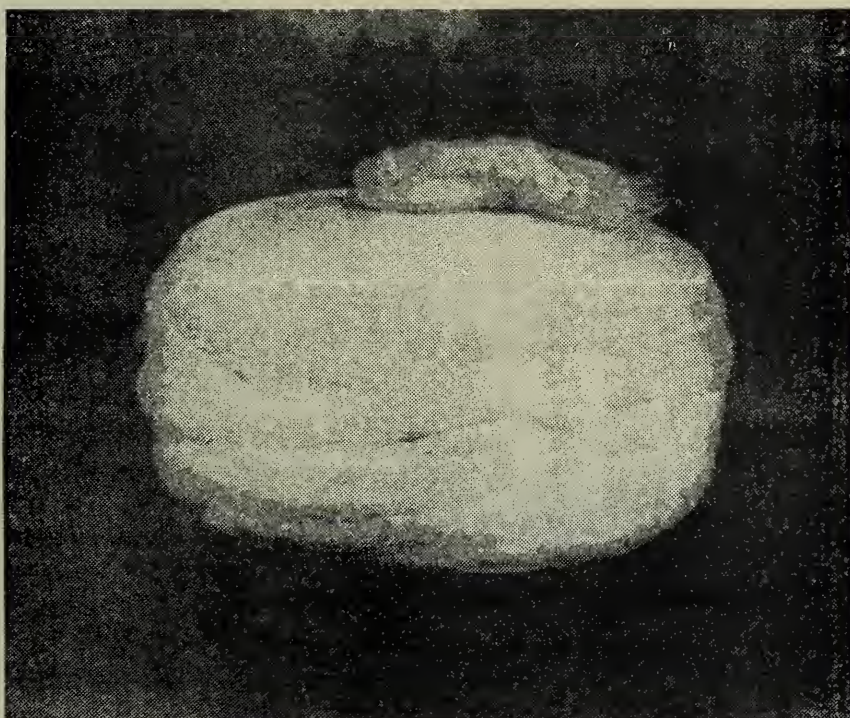
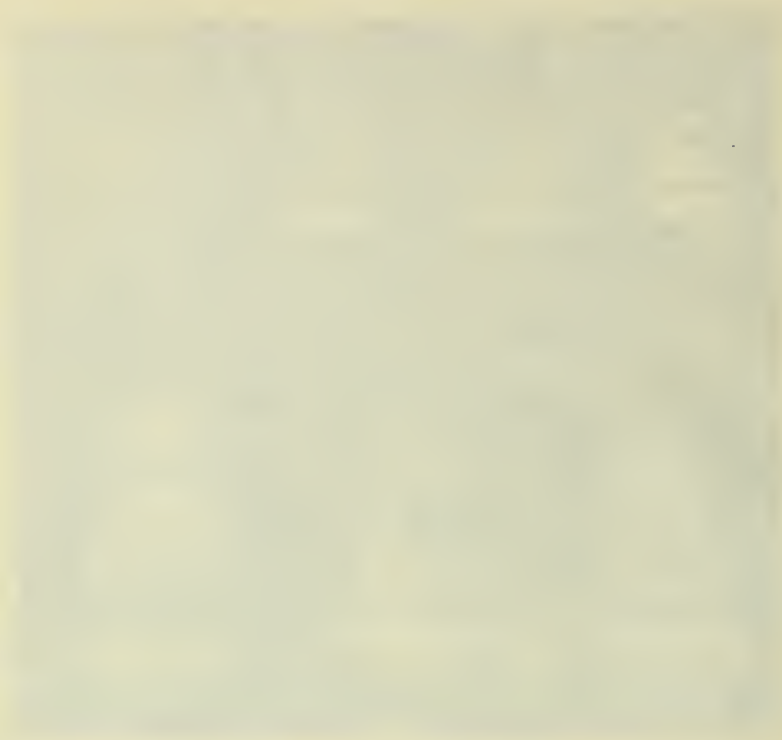


FIGURE 2 - A BALL OF TOP. THIS ROPE-LIKE STRAND IS COMPOSED OF ONLY THE LONGER FIBERS WHICH HAVE BEEN ARRANGED PARALLEL BY THE COMBING OPERATION.



[illegible]

This is No. 1528

HIGH				WIDE THICKNESS			
	HIGH	WIDE	THICKNESS		HIGH	WIDE	THICKNESS
1523	9	inches	7	inches	3/8	inch	
1524	10	10	7	10	10	10	
1525	9	11	6	11	11	11	
1526	9	11	7 1/2	11	11	11	
1527	10 1/2	11	7 1/2	11	11	11	
1528	11	11	8	11	11	11	

MANUFACTURED BY

LIBRARY BUREAU
Division of REMINGTON RAND INC.
Library Supplies of all kinds

